Cheyboygan county-line from the Station and only twenty to the Little Traverse Bay at Bay View.

Of the 25 listed as belonging to the "beach" or to "the beach and open water" only 14 will probably be called water birds. Of these the spotted sandpiper has an abundance of (6) and the red-breasted merganser (17), while the others rank rather low, from (28) to the lowest of all (47). Possibly Douglas Lake is too small to compete successfully with the larger lakes, Burt, Mullet, Huron and Michigan, none of which is more than 20 miles away, for the favor of the gulls and terns, and possessed of too little swamp to compete with Indian and Crooked Rivers for the favor of the coots and bitterns. Two trips were made to these rivers and on each of them large numbers of swamp birds were seen, but they are too far from the Station to be visited regularly; for this reason the records are unavailable for our purpose.

A HERMIT THRUSH STUDY.

BY CORDELIA J. STANWOOD.

A hill wooded with gray birches and evergreens slopes down to a peat bog. Just above the swale grows the painted trillium that carries at its snowy heart the symbol of the Trinity in royal purple. One morning as I plucked a handful of these dainty blooms, I flushed a brooding Hermit from her eggs. A small fir shaded the nest. The three greenblue eggs made a charming bit of color against the dull orange lining of pine needles.

Twelve days later I visited the nest again. The woods were now sweet with linnea and three fascinating little Thrushes, about seven days old, welcomed me with a wide expanse of golden throat. The young birds had beautiful, large eyes; the natal down was conspicuous at the close of the quill stage; and the tips of the olive and buffy feathers were just beginning to show beyond the quill casings.

I was anxious to try an experiment with tame Thrushes,

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TAME HERMIT THRUSHES.

PHOTO BY CORDELIA J. STANWOOD

so I carried the little birds home. The journey to my home did not disturb them in the least. They ate bountifully of bread and milk from a little gold-lined, silver spoon, took a few drops of water and slept the greater part of the day with their heads straight in front of them.

After the first day, I varied their diet with earthworms, ants' eggs, steak, wild pears, strawberries, a spider, or a fly occasionally, and a grasshopper when I was able to find it.

Until the morning of the fourth day the Hermits remained as distinctly inside the small nest as if an invisible wall separated them from all else. They grew rapidly, ate well, preened vigorously, scratched their ears with their toes, and although the nest was quite deep, voided all excrement without it, sometimes standing on the edge of the nest to do so.

In the middle of the morning of the fourth day, they slowly and cautiously stole forth from the nest, one at a time, just as they do in the wild woods. From that moment they insisted on flying and perching and refused to snuggle down anywhere.

During the eleven days that followed, I carried the birds to the woods for part of each day, or the entire day and let them run wild. At night I took them in and they perched at dark in the balsam boughs that I placed for them over a door. At first I remained near them all the time that they were in the woods, and fed them as they came for food. Later I put them out early in the morning, and went and fed them as often as once in two hours.

The first afternoon in the woods, I saw one Hermit take a sunbath with his feathers all fluffed out, one pick up a small brown caterpillar, and another several mouthfuls of earth.

The moment that I put the Thrushes down near a shallow pool below the spring, and rippled the water with my hand, the birds entered the pool, drank, and splashed the water all over themselves. These irresistible, immature birds, going to the water so slowly, cautiously, and surely, and bathing after the exact patterns handed down to them made an awesome as well as a pretty picture. Between feeding times when the birds were not seeking food for themselves, they liked to snuggle down on the pine needles under low firs, or among dead leaves and sticks in hollows, or to perch on dead branches or stumps. The Thrushes resembled their surroundings so closely that I was in constant fear lest I should step on one. I always examined the ground carefully before advancing a step.

When in the woods, the birds kept in touch by a very sweet, low call that sounded like *phee*. A bird became uneasy at once if he lost his mates. I heard them call *peep* frequently, and also *chuck* once. One day when I covered a little bird in a basket to take him to the studio, he gave the pitiful call that the parents give when concerned for the safety of the young in the nest, a call that sounds like a *deep sigh*.

Even after the young had been in the woods for several days, they would have suffered for food and water without my constant care. I found that it was necessary to select a new feeding place for them where they must find water, and where they could not avoid the wild birds that came to drink and bathe.

When the Hermits were about fifteen days old, they awoke me one morning, calling for food. I fed them and returned to my room. When one became hungry again, he perched on the molding of the door through which I disappeared and called until I came and fed him.

When seventeen days old, the Thrushes were able to pick up anything from the floor such as ants, ant's eggs, flying ants, small spiders, and the like.

Often tame young birds will follow voices, and fly up onto a stranger and beg for food instead of helping themselves. To counteract this tendency in my Thrushes, I never exhibited them to company at home, I never took visitors to see them in the woods, I never called them save at the feeding place, I never answered their welcoming peeps until I arrived at the feeding tree. Although I loved them dearly, I never petted or coddled them. And I never spared myself any exertion that would add to their health, comfort, or safety.



PAINTED TRILLIUM. In the environment of the Hermit Thrush. PHOTO BY CORDELIA J. STANWOOD When the Thrushes came to feed, they liked to perch on my arms, head, or fly into my lap. They disliked being held across the wings, and strenuously resisted being caught. Every day they became more swift in their movements, more sensitive to sounds, and less dependent on the food supply that I brought to them.

I saw them pick up brown and green caterpillars, moths, and ants, besides such food as I left on the ground for them as spruce bud moths, grasshoppers, earthworms, ants' eggs, wild pears and wild strawberries.

A few days later, after I began to leave the Thrushes out nights, there came a severe rain storm. I was able to visit the Thrushes but twice that day. I found them dry save the tips of their tail feathers and not very hungry. The following day I carried food to them three times. On one of these trips, a little Thrush came to meet me, dripping from his bath in the spring. Although the feeding tree was not more than six yards from the wire fence that separated the woods from the open pasture and the spring, I never knew the Thrushes to come through the wire fence when anyone was at the spring.

They now ate so rapidly that it was awkward for them to open their mouths sufficiently to take steak from the scissors, and there was danger of cutting their mouths or throats. A mouthful or two sufficed and they darted away. They were also extremely quiet and started and listened at every sound.

The Thrushes were so well able to care for themselves that it seemed needlessly cruel to toll them to a certain spot with food where animals of prey might lie in wait for them. My frequent visits, also, kept them from their kind. Their parents drank and bathed at this same spring. I did not visit the feeding spot again. I never saw or heard of the Thrushes again.

I have lived with several Thrush families and I do not hesitate to affirm that this experiment might not have been so successful with all of them. Most young Thrushes when tamed, particularly when excessively petted, loose all instinct for caring for themselves; they are little fool birds. However, Thrush character varies; it is as beautiful and flexible as the bird's wonderful voice. While nearly all Thrushes are extremely gentle and affectionate, I must confess that the only bird that ever dealt me a blinding blow in the eyes with his wings, when I accidentally startled the young from the nest was an extremely beautiful specimen of the Hermit Thrush. In one family I have found one helpless little bird that insisted on sitting in my note book all the time, with two that resented too much attention.

June 15, 1912, I found a Hermit Thrush incubating three eggs.

June 26, the young Hermit Thrushes were seven days old; it was the end of the quill stage; I took the young Thrushes to study.

June 29, the young Hermits left the nest.

June 30-July 10, the young Thrushes spent part or all of each day in the woods learning to feed. They perched in fir boughs in the house at night.

July 10-July 15, I freed the Thrushes entirely and fed them what was necessary.

July 15, the Thrushes appeared to be in an almost natural state. They were entirely competent to care for themselves.

A BRIEF STUDY OF THE NEST LIFE OF THE BLACK-THROATED GREEN WARBLER.

BY CORDELIA J. STANWOOD.

Beside a shady path that marked the course of a neglected woodroad, a pair of Black-throated Green Warblers constructed a nest, near the tip of a branch of a large spruce tree, but three and one-half feet above the ground. It is not very often that the Black-throated Green Warbler provides the student with such an excellent opportunity for studying her nest. Usually these birds build at a greater elevation.